

## REMARKS

Claims 1-10, 13-16, and 18 are currently pending. Claims 19-21 have been canceled without prejudice or disclaimer. Claims 1, 2, and 15 have been amended, the amendment of which is supported by Applicant's original disclosure, such as claims 19-21 and page 10, line 22, through page 11, line 6. It is respectfully submitted that no new matter has been added.

### Response to Arguments

In the October 13, 2009 Office Action, the Patent Office rejected claims 1-6, 15, 16, and 19-21 under 35 USC 102(b) as being anticipated by Chheda et al., U.S. Patent No. 5,946,621.

Applicant notes that MPEP Section 2131 states "'A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.'" *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)."

All claims now recite "where the selection of the candidate node occurs without using a received signal strength indicator." Chheda does not anticipate this subject matter. This subject matter is not inherent.

Applicant's claimed method represents an improvement over the prior art of record where, on page 1, lines 14-23, of Applicant's original disclosure, it was noted that the use of signal strength indicators in the prior art resulted in complicated electronic circuitry or increased manufacturing costs. All claims recite that selection occurs without the user of signal strength indicators, thus further distinguishing the claimed invention from Chheda and the other cited prior art. This is because Chheda relies on pilot strength measurement messages (col. 7, lines 24-27), Rohani relies upon pilot strength measurement messages (col. 6, lines 44-48), Gross relies on factors such as beam pattern as well as locations of beams (abstract), Haas relates to routing (abstract), and Agrawala relies upon analyzing measurement tuples to determine a location of nodes.

On page 6 of the October 13, 2009 Office Action, the Patent Office asserted as follows:

Chheda discloses where the selection of the candidate node occurs

without using a received signal strength indicator (column 8 lines 45-53, column 9 lines 33-39, column 10 lines 57-67), Chheda states that a C/I can be used, however, no received signal strength indicator is discussed.

The passages in column 8, lines 45-53, column 9, lines 33-39, and column 10, lines 57-67, are reproduced below as follows:

In other words, the more individual neighbor sets, or lists, a sector is on, the more important it is to the updated neighbor set and vice versa. As has been previously noted, and as is well known, sectors are prioritized within the neighbor set of another sector in order of importance thereof with respect to that sector. Therefore, within a single neighbor set, a neighboring sector, or "neighbor," having a priority number, or rank, of "1" is of greater significance than a neighbor having a rank of "5". The relative importance of a sector depends not only on proximity information, but also antenna position, antenna direction and shadowing effects.

In summary, using the overlap technique, neighbors that are also candidate or active set members are eliminated from consideration and then remaining neighbors are included in the updated neighbor set first in order of the number of individual neighbor sets in which they are included and then in order of the sum of their ranks within the individual sets. Referring now to FIG. 5, an example will be presented.

Starting again with the group having the largest A, any neighbor having the same combined rank (B) will be further ranked by adding the pilot C/I of the active set members whose individual neighbor sets they originate from and, if required, weighted by the neighbor's rank in each individual set, to determine a combined C/I for the neighbor. Neighbors are then included in the updated neighbor list in descending order of A, ascending order of B, and descending order of combined C/I. **It will be recognized that the pilot C/I for each active set member can be obtained from the most recent PSMM.**

If the Patent Office turns to column 2, lines 28-33, of Chheda the following passage discloses as follows:

When the mobile unit detects a pilot of sufficient strength, meaning that it has a C/I above a certain minimum "ADD threshold", that is not associated with any of the forward traffic signals currently assigned to it, it sends a "pilot strength measurement message" ("PSMM") to the sector(s) with which it is currently in communication.

The above passages show that Chheda discloses that the C/I measurement is based on a received signal strength. Thus, none of the currently pending claims are anticipated by Chheda.

Furthermore claim 15 has been amended to recite “select, in accordance with node density, as a candidate node for next communication with the mobile node, the specified node for which the second largest number of overlaps has been counted.” None of the prior art references teach or suggest this claimed subject matter.

**Claim Rejections under 35 U.S.C. 102(b)**

The Patent Office rejected claims 1-6, 15, 16, and 19-21 under 35 U.S.C. 102(b) as being anticipated by Chheda, U.S. Patent No. 5,946,621.

A claim is anticipated when each and every non-inherent claim limitation is disclosed, in general, by a single reference. (See MPEP 2131)

Claim 1 recites as follows:

A method comprising: specifying nodes present within a communication zone of a mobile node; counting a number of overlaps between the communication zone of the mobile node and communication zones for each of the specified nodes; and selecting, as a candidate node for next communication with the mobile node, the specified node for which a largest number of overlaps has been counted, where the selection of the candidate node occurs without using a received signal strength indicator.

Claim 2 recites as follows:

A method comprising: specifying neighbor nodes present within a communication zone of a mobile node; specifying neighbor nodes for each specified neighbor node of the mobile node that are present within a communication zone of a corresponding one of the specified neighbor nodes of the mobile node; counting a number of overlaps between communication zones that are within the communication zone of the corresponding one of the specified neighbor nodes of the mobile node for each of the specified neighbor nodes; and selecting, as a candidate node for next communication with the mobile node, the specified neighbor node of the mobile node having a largest number of overlaps has been counted, where the selection of the candidate node occurs without using a received signal strength indicator.

Claim 15 recites as follows:

An apparatus comprising: a wireless transmitter; and a processor operable to specify nodes present within a communication zone of a mobile node which moves among a plurality of nodes dispersedly arranged; count a

number of overlaps between the communication zone of the mobile node and communication zones for each of the specified nodes; determine the specified node for which a largest number of overlaps has been counted and the specified node for which a second largest number of overlaps has been counted; and select, in accordance with node density, as a candidate node for next communication with the mobile node, the specified node for which the second largest number of overlaps has been counted, wherein the candidate node is selected by the mobile node, where the selection of the candidate node occurs without using a received signal strength indicator.

All claims now recite "where the selection of the candidate node occurs without using a received signal strength indicator." Chheda does not anticipate this subject matter. This subject matter is not inherent.

On page 6 of the October 13, 2009 Office Action, the Patent Office asserted as follows:

Chheda discloses where the selection of the candidate node occurs without using a received signal strength indicator (column 8 lines 45-53, column 9 lines 33-39, column 10 lines 57-67), Chheda states that a C/I can be used, however, no received signal strength indicator is discussed.

The passages in column 8, lines 45-53, column 9, lines 33-39, and column 10, lines 57-67, are reproduced below as follows:

In other words, the more individual neighbor sets, or lists, a sector is on, the more important it is to the updated neighbor set and vice versa. As has been previously noted, and as is well known, sectors are prioritized within the neighbor set of another sector in order of importance thereof with respect to that sector. Therefore, within a single neighbor set, a neighboring sector, or "neighbor," having a priority number, or rank, of "1" is of greater significance than a neighbor having a rank of "5". The relative importance of a sector depends not only on proximity information, but also antenna position, antenna direction and shadowing effects.

In summary, using the overlap technique, neighbors that are also candidate or active set members are eliminated from consideration and then remaining neighbors are included in the updated neighbor set first in order of the number of individual neighbor sets in which they are included and then in order of the sum of their ranks within the individual sets. Referring now to FIG. 5, an example will be presented.

Starting again with the group having the largest A, any neighbor having the same combined rank (B) will be further ranked by adding the pilot C/I

of the active set members whose individual neighbor sets they originate from and, if required, weighted by the neighbor's rank in each individual set, to determine a combined C/I for the neighbor. Neighbors are then included in the updated neighbor list in descending order of A, ascending order of B, and descending order of combined C/I. **It will be recognized that the pilot C/I for each active set member can be obtained from the most recent PSMM.**

If the Patent Office turns to column 2, lines 28-33, of Chheda the following passage discloses as follows:

When the mobile unit **detects a pilot of sufficient strength, meaning that it has a C/I above a certain minimum "ADD threshold"**, that is not associated with any of the forward traffic signals currently assigned to it, it sends a "pilot strength measurement message" ("PSMM") to the sector(s) with which it is currently in communication.

The above passages show that Chheda discloses that the C/I measurement is based on a received signal strength. Thus, none of the currently pending claims are anticipated by Chheda.

Furthermore claim 15 has been amended to recite "select, in accordance with node density, as a candidate node for next communication with the mobile node, the specified node for which the second largest number of overlaps has been counted." None of the prior art references teach or suggest this claimed subject matter.

Thus, Chheda does not anticipate claims 1-10, 13-16, and 18-21.

#### **Claim Rejections under 35 U.S.C. 103(a)**

The Patent Office rejected claim 7 under 35 U.S.C. 103(a) as being unpatentable over Chheda, in view of Rohani, U.S. Patent No. 6,195,342.

Chheda does not disclose or suggest "where the selection of the candidate node occurs without using a received signal strength indicator."

Rohani does not remedy this deficiency of Chheda.

Because neither Chheda nor Rohani disclose or suggest "where the selection of the candidate node occurs without using a received signal strength indicator," no combination of these two references alone would teach or suggest this claimed subject matter.

Thus, claim 7 is not made obvious by Chheda in view of Rohani.

The Patent Office rejected claim 8 under 35 U.S.C. 103(a) as being unpatentable over Chheda, in view of Gross, U.S. Patent No. 6,856,803.

Chheda does not disclose or suggest “where the selection of the candidate node occurs without using a received signal strength indicator.”

Gross does not remedy this deficiency of Chheda.

Because neither Chheda nor Gross disclose or suggest “where the selection of the candidate node occurs without using a received signal strength indicator,” no combination of these two references alone would teach or suggest this claimed subject matter.

Thus, claim 8 is not made obvious by Chheda in view of Gross.

The Patent Office rejected claims 9, 10, and 18 as being unpatentable over Chheda, in view of Haas, U.S. Patent No. 6,304,556.

Chheda does not disclose or suggest “where the selection of the candidate node occurs without using a received signal strength indicator.”

Haas does not remedy this deficiency of Chheda.

Because neither Chheda nor Haas disclose or suggest “where the selection of the candidate node occurs without using a received signal strength indicator,” no combination of these two references alone would teach or suggest this claimed subject matter.

Thus, claims 9, 10, and 18 are not made obvious by Chheda in view of Haas.

The Patent Office rejected claims 13 and 14 as being unpatentable over Chheda in view of Agrawala, U.S. Published Patent Application No. 2005/0020275.

Chheda does not disclose or suggest “where the selection of the candidate node occurs without using a received signal strength indicator.”

Agrawala does not remedy this deficiency of Chheda.

Because neither Chheda nor Agrawala disclose or suggest “where the selection of the candidate node occurs without using a received signal strength indicator,” no combination of these two references alone would teach or suggest this claimed subject matter.

Thus, claims 13 and 14 are not made obvious by Chheda in view of Agrawala.

It is respectfully submitted that the rejections of claims 1-10, 13-16, and 18-21 under 35 U.S.C. 102(b) based on Chheda and under 35 U.S.C. 103(a) based on Chheda in combination with Rohani, Gross, Haas, and/or Agrawala, have been overcome, and it is respectfully requested

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that the Patent Office reconsider and remove the rejections of these claims. The Patent Office is respectfully requested to favorably consider and allow all of the pending claims 1-10, 13-16, and 18 as now presented for examination. An early notification of the allowability of claims 1-10, 13-16, and 18 is earnestly solicited.

Serial No.: 10/500,404  
Art Unit: 2617

Respectfully submitted:

Walter J. Malinowski      January 5, 2010  
Walter J. Malinowski      Date

Reg. No.: 43,423

Customer No.: 29683

HARRINGTON AND SMITH, ATTORNEYS AT LAW, LLC  
4 Research Drive  
Shelton, CT 06484-6212

Telephone: (203) 925-9400, extension 19  
Facsimile: (203) 944-0245  
email: wmalinowski@hspatent.com

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450.

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